WHAT IS CLAIMED IS:

1. A navigation apparatus for providing navigation services, comprising:

a platform block provided with hardware of the navigation apparatus and basic functions for controlling the hardware;

a navigation application processing block for providing navigation services using the basic functions provided in said platform block; and

an optional application processing block for providing optional services using any of the navigation services based on information acquired using the basic functions of said platform block, by communicating with said navigation application processing block.

2. The navigation apparatus according to claim 1, wherein said optional application processing block is an application executed on a virtual platform and is independent of said platform block.

3. The navigation apparatus according to claim 1, wherein said optional application processing block is a Java application executed on a Java virtual machine, and

said navigation application processing block communicates with said optional application

processing block in accordance with Java native
interface.

4. The navigation apparatus according to
claim 1, wherein said navigation application
processing block communicates with said optional
application processing block using socket
communication.

5. A computable readable recording
medium storing programs for controlling a computer
to operate as a navigation apparatus providing
navigation services, the programs allowing a
computer to operate as:

a platform block provided with basic
functions for controlling hardware of the
navigation apparatus;

a navigation application processing
block for providing navigation services using the
basic functions of the platform block; and

an optional application processing block
for providing optional services using any of the
navigation services based on information acquired
using the basic functions of said platform block,
by communicating with said navigation application
processing block.

6. A navigation apparatus for providing
navigation services, comprising:

a platform block provided with hardware

of the navigation apparatus and basic functions for
controlling the hardware;

a navigation application processing
block for providing navigation services using the
basic functions provided in said platform block;

an optional application processing block
for providing optional services using any of the
navigation services based on information acquired
using the basic functions of said platform block;
and

an interface processing block for
communicating with said optional application
processing block and said navigation application
processing block so as to enable any of the
optional services to be executed.

7. The navigation apparatus according to
claim 6, wherein said optional application
processing block is executed on a virtual platform
and is independent of said platform.

8. The navigation apparatus according to
claim 6, wherein said optional application
processing block is a Java application executed on
a Java virtual machine.

9. The navigation apparatus according to
claim 6, wherein said interface application block
is a Java application executed on a Java virtual
machine.

10. The navigation apparatus according
to claim 9, wherein said interface application
block is provided with one of a method for

5   exchanging data with said optional application
processing block and a member variable in which
said optional application processing block reads
and writes data, and one of a method for exchanging
data with said navigation application processing

10   block and a member variable in which said
navigation application processing block reads and
writes data.

11. The navigation apparatus according

15   to claim 6, wherein said navigation application
processing block executes any of the navigation
services in accordance with navigation control data
supplied from said optional application processing
block via said interface processing block and

20   supplies navigation information data including an
interim result or an execution result to said
optional application processing block via said
interface processing block.

25   12. The navigation apparatus according
to claim 11, wherein said interface processing
block generates, when it is determined that the
navigation control data from said optional
application processing block is composite

30   navigation control data, plural navigation control

data sets from the composite navigation control
data and supplies the plural navigation control
data sets to said navigation application processing
block.

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13. The navigation apparatus according
to claim 6, wherein said interface processing block
communicates with said optional application
processing block using socket communication or Java

10 RMI.

14. The navigation apparatus according
to claim 6, wherein said interface processing block
communicates with said navigation application

15 processing block using socket communication.

15. The navigation apparatus according
to claim 6, wherein said interface processing block
acquires a remote optional application processing

20 block from an external source using the basic
functions of said platform block.

16. The navigation apparatus according
to claim 15, wherein said interface processing

25 block acquires the remote optional application
processing block from the external source only when
a communication service used by the remote optional
application processing block is available for use.

30   17. The navigation apparatus according

to claim 15, wherein said interface processing
block displays a menu of remote optional
application processing blocks using the basic
functions of said platform block, adds to the menu
5   the remote optional application processing block
when the remote optional application processing
block is acquired from the external source and
starts the acquired remote optional application
processing block when selected from the menu.

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18. The navigation apparatus according
to claim 6, wherein said optional application
processing block supplies a request for required
communication services to said interface processing
15   block, and
said interface processing block
dynamically starts the requested communication
services upon receipt of the request.

20   19. The navigation apparatus according
to claim 18, wherein said interface processing
block acquires a module for executing the requested
communication services corresponding to the request
when the module is not available.

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20. The navigation apparatus according
to claim 6, wherein said optional application
processing block provides collection and delivery
information services using any of the navigation
30   services, based on information acquired from a

predetermined center using the basic functions of said platform block.